



LAWRENCE  
LIVERMORE  
NATIONAL  
LABORATORY

LLNS-TR-402240

**Decontamination and Waste Treatment Facility  
Lawrence Livermore National Laboratory  
EPA ID No. CA2890012584**

**Small Scale Treatment Laboratory  
Annual Report  
Calendar Year 2007**

**Submitted to the  
Standardized Permitting and Corrective Action Branch  
Department of Toxic Substances Control, Region 2**

*Environmental Protection Department  
Peter Yimbo*

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**Annual Report for the Small Scale Treatment Laboratory  
for the Calendar Year 2007 for Livermore Main Site (EPA ID#  
CA2890012584), Lawrence Livermore National Laboratory (LLNL)**

The following small scale treatment operations using treatment codes T22, T47B and T34B were conducted during calendar year 2007 at the Livermore Main Site of Lawrence Livermore National Laboratory (LLNL).

- Reactive waste processing area, oxidation (T22)
- Reactive waste processing area, other segregation (T47B)
- Reactive waste processing area, other controlled water reaction (T34B)

Table 1 shows treatment processes and number of times they were conducted in the Reactive Waste Processing Area (RWPA) as follows: oxidation (41 times), other segregation (1 time) and other controlled water reaction (1 time). The waste types and total amounts treated during the small-scale treatment operations were:

lithium hydride	4.73 kg
lithium deuteride	1 kg
sodium peroxide	10 g
depleted uranium/metal turnings	0.67 ft <sup>3</sup>
lithium/beryllium hydride	2.50 kg

**Table 1. Dates and Quantities of Waste by Treatment Location, Process and Code**

DATE	waste	QTY TREATED	TREATMENT UNIT/PROCESS	TREAT CODE
7-11-07	lithium hydride	218 g	RWPA/oxidation	T22
7-12-07	lithium hydride	218 g	RWPA/oxidation	T22
7-16-07	lithium hydride	218 g	RWPA/oxidation	T22
7-17-07	lithium hydride	218 g	RWPA/oxidation	T22
7-17-07	lithium hydride	303 g	RWPA/oxidation	T22
7-18-07	lithium hydride	303 g	RWPA/oxidation	T22
7-19-07	lithium hydride	303 g	RWPA/oxidation	T22
7-19-07	lithium hydride	252 g	RWPA/oxidation	T22
7-23-07	lithium hydride	252 g	RWPA/oxidation	T22
7-24-07	lithium hydride	252 g	RWPA/oxidation	T22
7-25-07	lithium hydride	252 g	RWPA/oxidation	T22
7-25-07	lithium hydride	175 g	RWPA/oxidation	T22
7-26-07	lithium hydride	175 g	RWPA/oxidation	T22
7-30-07	lithium hydride	175 g	RWPA/oxidation	T22
7-30-07	lithium hydride	34 g	RWPA/oxidation	T22
8-1-07	lithium hydride	227 g	RWPA/oxidation	T22

**Annual Report for the Small Scale Treatment Laboratory for the Calendar Year 2007 for Livermore  
Main Site (EPA ID# CA2890012584), Lawrence Livermore National Laboratory (LLNL)**

DATE	waste	QTY TREATED	TREATMENT UNIT/PROCESS	TREAT CODE
8-2-07	lithium hydride	227 g	RWPA/oxidation	T22
8-6-07	lithium hydride	227 g	RWPA/oxidation	T22
8-8-07	lithium hydride	227 g	RWPA/oxidation	T22
8-13-07	lithium hydride	227 g	RWPA/oxidation	T22
8-14-07	lithium hydride	227 g	RWPA/oxidation	T22
8-7-07	lithium hydride	2 g	RWPA/oxidation	T22
8-8-07	lithium hydride	20 g	RWPA/oxidation	T22
8-8-07	lithium deuteride	167 g	RWPA/oxidation	T22
8-20-07	lithium deuteride	167 g	RWPA/oxidation	T22
8-21-07	lithium deuteride	167 g	RWPA/oxidation	T22
8-22-07	lithium deuteride	167 g	RWPA/oxidation	T22
8-28-07	lithium deuteride	167 g	RWPA/oxidation	T22
8-29-07	lithium deuteride	167 g	RWPA/oxidation	T22
8-7-07	sodium peroxide	10 g	RWPA/other controlled water reaction	T34B
9-10-07	depleted uranium and other metal turnings	0.67 ft <sup>3</sup>	RWPA/other segregation	T47B
9-04-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-05-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-06-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-07-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-10-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-11-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-24-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-25-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-25-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-26-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
9-27-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22
10-01-07	lithium/beryllium hydride	208 g	RWPA/oxidation	T22